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IAP97

FIG. 3A

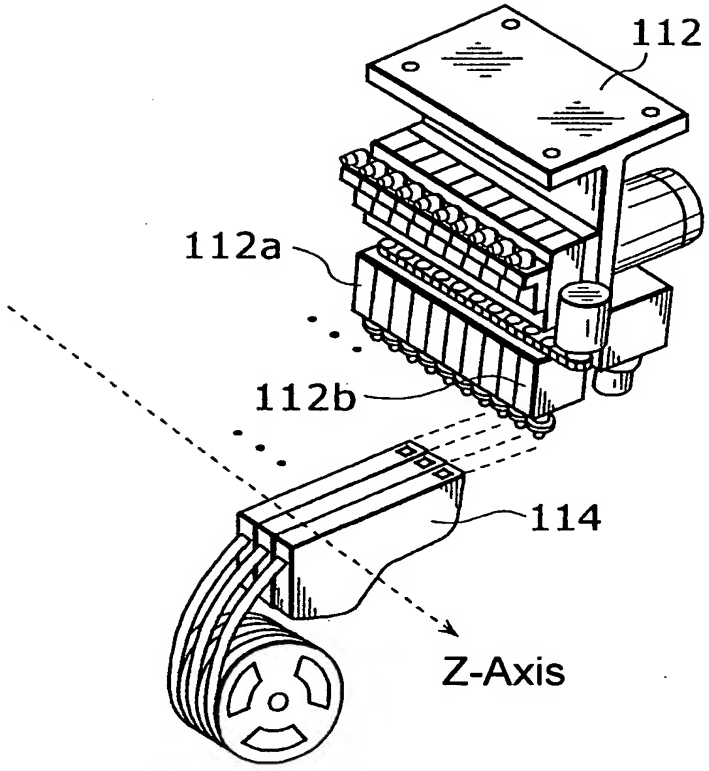


FIG. 3B

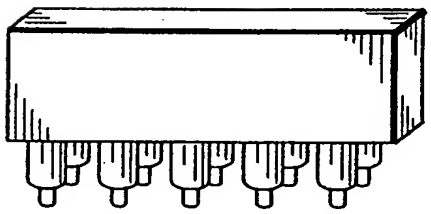


FIG. 11

Nozzle interchange time N (nozzle set number n=N+1)	Task number X_N	Evaluated value S
N=0	X_0	S_0
N=1	X_1	S_1
N=2	X_2	S_2
⋮	⋮	⋮

Evaluation function:

$S = X_N + h \cdot N$

(h: a coefficient for converting a time taken by interchanging nozzles per time into a task number)

FIG. 25A

Nozzle set

Nozzle set	1	2	3	4
1	S(6)	S(6)	S(6)	S(6)
2	S(1)	S(1)	M(1)	M(1)
3	M(1)	M(1)	M(1)	L(1)

FIG. 25B

Nozzle pattern 1 (Number of nozzles to be interchanged: 4)

Nozzle set	Task No.	H1	H2	H3	H4
1	1～6	Ⓢ	Ⓢ	Ⓢ	Ⓢ
2	7	Ⓢ	Ⓢ	Ⓜ	Ⓜ
3	8	Ⓜ	Ⓛ	Ⓜ	Ⓜ

FIG. 25C

Nozzle pattern 2 (Number of nozzles to be interchanged: 6)

Nozzle set	Task No.	H1	H2	H3	H4
1	1～6	Ⓢ	Ⓢ	Ⓢ	Ⓢ
3	7	Ⓜ	Ⓜ	Ⓜ	Ⓛ
2	8	Ⓜ	Ⓜ	Ⓢ	Ⓢ

FIG. 25D

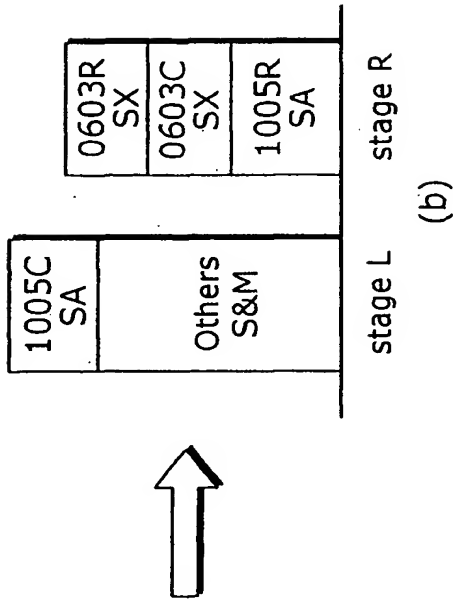
Nozzle pattern 3 (Number of nozzles to be interchanged: 6)

Nozzle set	Task No.	H1	H2	H3	H4
2	1	Ⓢ	Ⓢ	Ⓜ	Ⓜ
1	2～7	Ⓢ	Ⓢ	Ⓢ	Ⓢ
3	8	Ⓜ	Ⓜ	Ⓜ	Ⓛ

FIG. 49

Component type	0603		1005		Others		
	R	C	R	C			
Number of components	10	12	20	11	32	18	
Nozzle type	SX	SX	SA	SA	S	M	
Nozzle source	5		5		3	2	
PG	1	2	3	4	5		
Stage	R				L		

(a)



(b)